FIGURES AND DESCRIPTIONS OF SUPPOSED NEW SPECIES AND VARIETIES OF ENNEA, MACROCHLAMYS, COCHLOSTYLA, STROPHOCHEILUS (BORUS), ODONTOSTOMUS (MORICANDIA), LEPTOPOMA, CATAULUS, COPTOCHEILUS AND TROPIDOPHORA.

By HUGH FULTON.

(Plate ix.)

Ennea oleacea, n.sp.

Pl. ix, fig. 9.

Shell oblong-oval, very slightly perforated, rather thin, whitish, shining; whorls 63, very convex, slowly and regularly increasing, first two smooth, remainder distinctly (under the lens) obliquely striated, suture of lower whorls narrowly but clearly margined; aperture oval; peristome white, thickened and narrowly expanded, broadened interiorly at point of insertion, margins connected by a thin callus.

Maj. diam. 12; alt. 22 millim.

Hab.—Ukami, German East Africa.

This shell belongs to the group of *E. ovoidea*, Brug., *obesa*, Gibbons, *minor*, Morelet, and *liberiana*, Lea. Its nearest ally is perhaps *E. obesa*, which is more elongate in form and has less convex whorls, the latter increasing much more rapidly than in *oleacea*.

Macrochlamys bathycharax, Godw.-Aust.

Pl. ix, fig. 6.

Macrochlamys bathycharax, Godwin-Austen: Ann. and Mag. Nat. Hist., 1888, p. 56.

Allied to *M. compluvialis*, Blanf., and *M. convallata*, Bens. it is like the former in regard to its deeply channeled sutural area, but both are larger and not nearly so depressed in proportion to size, the umbilicus being also more open in the latter species.

Dimensions of figured specimen, maj. diam. 11½; alt. 5 millim.

The specimen figured, collected by Mr. Booley at Port Blair, which I at first supposed to be a new species, must be, I think, judging from the description only (my search for the type in Godwin-Austen's collection having been unsuccessful) his M. cathycharax, if not, I would propose to name it M. subconvallata.

Cochlostyla delicata, n.sp.

Pl. ix, fig. 10.

Shell pyramidally ovate, very slightly perforate, shining, first two and last whorls pure opaque white, middle whorls yellowish with irregular oblique whitish stripes, inconspicuously obliquely striated, and with numerous impressed spiral lines; whorls 6, moderately convex, regularly increasing; suture impressed; aperture sub-ovate, interior white; peristome slightly thickened, behind the peristome is a dark brown band about 2 millim, wide which shows through inside of aperture as a bluish colour, and joins the brown margin of peristome, giving it the appearance of being broadly expanded.

Maj. diam. 19; alt. 40 millim.

Hab.—?

This distinct species (probably from New Ireland or New Britain) is allied to C. hindei, Cox, and C. heimburgi, Brancsik.

It bears a superficial resemblance to some varieties of *C. calobapta*, Jonas.

Strophocheilus (Borus) separabilis, n.sp.

Pl. ix, fig. 12.

Shell oblong-ovate, imperforate, yellowish-brown below, darker on embryonic whorls which are margined above with golden-yellow; whorls 5, rapidly increasing, embryonic portion consisting of $3\frac{1}{2}$ whorls, clearly marked off and obliquely striated except first whorl which is smooth, the last $1\frac{1}{2}$ whorls strongly malleated; aperture sub-ovate, brown within; peristome thickened and slightly expanded at basal and columellar margins, pinkish fading to whitish at point of insertion, margins connected by a very thin, well-defined, whitish callus.

Maj. diam. 36; alt. 63 millim. Hab.—? (probably Peru).

Easily distinguished from other species known to me, by its strongly malleated surface and thin substance.

Odontostomus (Moricandia) toleratus, n.sp.

Pl. ix, fig. 2.

Shell narrowly but deeply rimate or umbilicate, fusiform, rather thin, slightly polished, light yellowish brown with indentations darker, upper part almost smooth, lower whorls distinctly malleated and crossed by microscopic close-set impressed spiral lines only visible under the lens; suture of lower part sub-crenulate; whorls $8\frac{3}{4}$, slightly convex, tapering at the base, aperture narrowly oblong, interior with a blackish stripe bordering the peristome, and continued at back of columellar fold, white in the throat; peristome slightly pressed outwards, white mar-

gined, deflected backwards somewhat at basal termination, columellar portion gradually widening to point of insertion, margins connected by a thin transparent callus.

Maj. diam. 9; alt. 32 millim.

Hab.—Brazil.

This bears great resemblance to the figure of O. willi, Dohrn, but according to Dohrn's description that species is "delicately and sharply striate longitudinally," a character not present in our species. From O. nasutus, Mts., it can be distinguished by its strongly malleated surface and the absence of the rather conspicuous white spiral hair-lines seen in that species.

Leptopoma placidum, n.sp.

Pl. ix, fig. 7.

Shell almost imperforate, subconical, thin, pellucid, light yellowish colour, ornamented by numerous somewhat interrupted narrow golden-coloured spiral bands, lower whorls with microscopic spiral waved striae, middle whorls with four more conspicuous thread-like keels; whorls $5\frac{1}{4}$, moderately convex, last rounded; aperture very oblique, subcircular, opaque white for a short distance within, then transparent; peristome expanded except at columellar margin which is much thinner and almost straight; operculum normal.

Maj. diam. 10; alt. 11 millim.

Hab.—S. Flores Island, lowlands under 500 ft. (Everett).

The narrow conical form of this species and the almost closed umbilicus distinguishes it at once from any other species known to me from that region.

Leptopoma albicans, n.sp.

Pl. ix, fig. 5.

Shell globosely conic, narrowly perforate, white, sometimes with a pale reddish band at the periphery continued at suture above, apex reddish-brown, with usual microscopic waved striae, on middle whorls about seven or eight spiral threads; whorls $5\frac{3}{4}$, moderately convex above, last whorl subcarinate in front, last half rounded; aperture somewhat oblique, subcircular; peristome white, narrowly expanded all round, margins joined by a very thin callus; operculum normal.

Maj. diam. 10; alt. 11 millim. Hab.—Sumba Island (Everett).

This neat little species of the same gross dimensions as the last described is nevertheless quite distinct, its spire is larger in proportion, its peristome smaller and less oblique, and it differs also in coloration and the carination of its last whorl.

Cataulus connectens, n.sp.

Pl. ix, fig. 4.

Shell fusiformly oblong, solid, narrowly perforate, dark reddish-brown; whorls 9½, obliquely striated, lower slightly convex, earlier whorls almost straight, the last carinated at the base, aperture circular, pale reddish-brown within; peristome continuous, yellow, thickened and reflexed, an egg-shaped opening to basal canal. Operculum normal.

Maj. diam. (including peristome) 8½; alt. 21 millim.

Hab.—Watawala, Ceylon (O. Collett).

Although closely allied to both blanfordi, Dohrn, and decorus, Bens., it can be readily separated from the former by its yellow peristome and from the latter by its smaller size, more slender form, and from both by the peristome being more in line with, or under, the whorls.

Cataulus greeni v. robusta, n.v. Pl. ix, fig. 1.

Shell more solid than typical greeni, somewhat broader in form, the oblique striae and crenulations at suture more conspicuous, the notch on upper right margin of peristome varies from being almost entirely absent, to specimens having a small but clearly defined V-shaped one.

With reference to the distinct notch supposed to be characteristic of greeni, I have before me a specimen of the typical form from Punduloya, which scarcely shows the notch, thus demonstrating the instability of that character.

Maj. diam. 71; alt. 17 millim.

Hab.—Dimbula, Ceylon, 5,000 ft. (O. Collett).

Coptocheilus perakensis, $n_{\bullet}sp.$

Pl. ix, fig. 3.

Shell narrowly perforate, moderately solid, reddish-brown, spire elongately-conic, obliquely striated, last two whorls margined at the suture, whorls $7\frac{1}{2}$, slightly convex, aperture circular, brown within; peristome sub-duplicate, expanded, whitish, margins connected by a raised callus, somewhat angular at upper columellar portion; operculum normal.

Maj. diam. (including peristome) 11, long. 23 millim.

Hab.—Perak (Grubauer).

C. perakensis differs from sectilabrum, Gld., in having no notch or sinus on its peristome, which is thinner, and also by its less convex whorls; from anostoma, Bens., it is distinguished by its smaller aperture, less convex whorls, and its more elongated form. The name Coptocheilus being said to be preoccupied, Kobelt has proposed the name of Schistoloma for this group.

Tropidophora perfecta, n.sp.

Pl. ix, fig. 11.

Shell globosely turbinate widely umbilicated, solid, closely spirally and

less

obliquely striated on lower whorls, spiral striae wider apart and more conspicuous at umbilical area, yellow at apex, light brown below with numerous narrow spiral bands of a darker colour; whorls 51, rapidly increasing, very convex, last rounded; aperture sub-circular, moderately oblique, almost black within; suture crenulated; peristome white: moderately expanded and shortly reflected, almost continuous, slightly interrupted at place of attachment to whork. Operculum normal

Maj. diam. 29; alt. 23 millim.

Hab.—Fort Dauphin, Madagascar (Sikora).

In coloration this shell somewhat resembles balleata, Sowb., and moulinsi, Grat., but the latter is a much more depressed form and the former not so depressed; it may be readily distinguished from both by its expanded and reflected peristome and its almost black aperture contrasting so strongly with its white peristome.

Tropidophora plurilirata, n.sp.

Pl. ix, figs. 8a, b.

Shell moderately umbilicate, globose-conic, rather thick, apex smooth, elsewhere covered with close-set spiral lirae crossed by fine oblique striae. about 40 on last whorl, yellowish brown, with rather indistinct oblique stripes of darker colour, sometimes with a narrow dark brown subperiphereal band; whorls 5, convex, somewhat channeled at suture of middle whorls; aperture sub-oval, interior with brown spiral thread-like lines on a whitish ground; peristome slightly thickened and narrowly expanded, continuous, angled at upper part at point of attachment to last whorl: operculum normal.

Maj. diam. 16½; alt. 16½ millim.

,, (banded specimen) 15½; alt. 16 millim.

Hab.—Near Grahamstown, Cape Colony (Miss Leppan).

The spiral lirae are much closer and more numerous than in any of the other S. African forms. T. plurilirata, insularis, Pfr., and transvaalensis, M. and P., are all similar in form and coloration.

EXPLANATION OF PLATE IX.

Fig. 1. Cataulus greeni v. robusta, n.v.

Fig. 2. Odontostomus (Moricandia) toleratus, n.sp.

Fig. 3. Coptocheilus perakensis, n.sp.

Fig. 4. Cataulus connectens, n.sp. Fig. 5.

Leptopoma albicans, n.sp.

Macrochlamys bathycharax, Godw.-Aust. Fig. 6.

Fig. 7. Leptopoma placidum, n.sp.

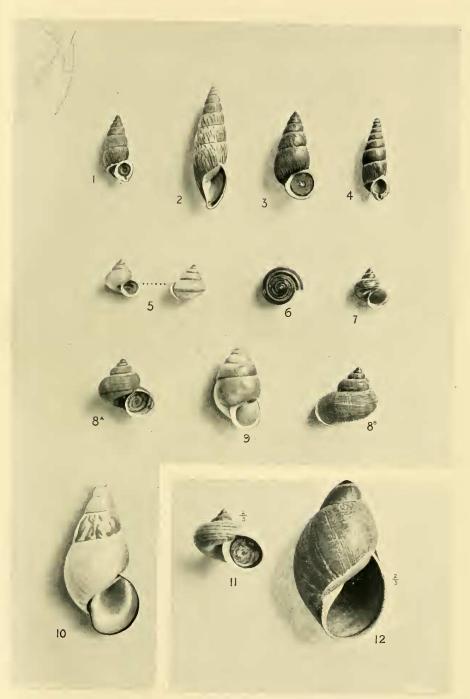
Fig. 8a, b. Tropidophora plurilirata, n.sp.

Fig. 9. Ennea oleacea, n.sp.

Fig. 10. Cochlostyla delicata, n.sp.

Fig. 11. Tropidophora perfecta, n.sp.

Strophocheilus (Borus) separabilis, n.sp. Fig. 12.



NEW SPECIES OF LAND SHELLS.